

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application in view of the foregoing amendments and the following remarks.

Claims 1-4, 6, 10-19, 22-36, 38-49 and 51-59 are pending in the application, with claims 1, 15, 34, 47, 48 and 49 being independent. Claim 50 was previously canceled, and claims 5, 7-9, 20-21 and 37 are canceled herein without prejudice to or disclaimer of the subject matter recited therein. Claims 1-4, 15, 22, 29, 31, 34, 36, 38-39 and 47-49 are amended herein. Support for the claim amendments and additions can be found in the original disclosure. No new matter has been added.

SPECIFICATION OBJECTIONS

The specification stands objected to because, according to the Office, trademarks should include an appropriate designation symbol. The specification is amended herein to address the informalities noted in the Office Action. Accordingly, Applicant requests withdrawal of the specification objections.

§ 112 SECOND PARAGRAPH REJECTIONS

Claims 29-31 and 48 stand rejected under 35 U.S.C. § 112, as allegedly being indefinite. This rejection is respectfully traversed. Nevertheless, Applicant has amended claims 29, 31 and 48 as proposed in the interview and respectfully requests withdrawal of the § 112 rejections.

§ 102 REJECTIONS

Claims 15-17, 23-30, 32, 33, and 48 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 7,191,452 (Noden). Applicant respectfully traverses the rejection.

Nevertheless, without conceding the propriety of the rejection and in the interest of expediting allowance of the application, claims 15 and 48 have been amended as proposed during the interview and are believed to be allowable.

Independent claim 15, as presently presented, recites (emphasis added):

15.(Currently Amended) A method for designing an application programming interface (API), the method comprising:

- selecting a core scenario for a feature area;
- writing at least one code sample for the core scenario;
- deriving an API for the core scenario responsive to the at least one code sample;

- performing one or more usability studies on the API utilizing a plurality of developers, wherein the usability studies comprise:**

- determining by an API designer, whether the plurality of developers are able to use the API without problems;**

- when the plurality of developers are not determined to be able to use the API without problems, then revising by the API designer, the API based on the one or more usability studies to produce a revised API; and**

- realizing the API in one or more processor-accessible storage media.**

Claim 15 stands rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 7,191,452 (Noden). Applicant respectfully traverses the rejection. Nevertheless, for the sole purpose of expediting allowance and without conceding the

propriety of the Office's rejections, Applicant has amended claim 1 as discussed during the above-referenced interview. Applicant respectfully asserts that the evidence in the Noden reference does not disclose the subject matter of amended claim 1. Specifically, Applicant asserts that the evidence in the Noden reference does not disclose, either expressly or inherently, **"performing one or more usability studies on the API utilizing a plurality of developers, wherein the usability studies comprise: determining by an API designer, whether the plurality of developers are able to use the API without problems; when the plurality of developers are not determined to be able to use the API without problems, then revising by the API designer, the API based on the one or more usability studies to produce a revised API."** (emphasis added).

Instead, Noden is directed to: "an engine for creating intermediate application programming interfaces by utilizing a target application's closed application programming interface through a macro coded in a specially designed macro language." (Abstract). However, utilizing a target application's closed API fails to disclose Applicant's claimed operation of "performing one or more usability studies...", as discussed during the interview. Thus, Noden does not disclose the subject matter of this claim.

During the above-referenced interview, Applicant understood the Office to agree. Applicant sincerely thanks the Office for this indication and, for at least this reason, submits that this claim stands allowable.

Dependent claims 16-17, 23-28, 30, and 32-33 depend from independent claim 15 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests that the §102 rejection of these claims be withdrawn.

Independent claim 48, as presently presented, recites (emphasis added):

48.(Currently Amended) A method for designing an application programming interface (API), the method comprising:

writing at least one code sample for a scenario;

deriving an API for the scenario responsive to the at least one code sample, the API including (i) an aggregate component that is adapted to facilitate implementation of the scenario and (ii) a plurality of factored types that provide underlying functionality for the aggregate component, the API enabling a progression from using the aggregate component in simpler situations to using an increasing portion of the plurality of factored types in increasingly complex situations, wherein the simpler situations are less complex than the complex situations;

performing one or more usability studies on the API utilizing a plurality of developers, wherein the usability studies comprise:

determining by an API designer, whether the plurality of developers are able to use the API without problems; and

when the plurality of developers are not determined to be able to use the API without problems, then revising by the API designer, the API based on the one or more usability studies to produce a revised API; and

realizing the API in one or more processor-accessible storage media.

In making out a rejection of this claim before its amendment, the Office states that Noden anticipates. Applicant respectfully disagrees. Nevertheless, for the sole purpose of expediting allowance and without conceding the propriety of the Office's rejections,

Applicant has amended claim 48 as discussed during the above-referenced interview. Applicant asserts that the evidence in the Noden reference fails to anticipate amended independent claim 48 because the evidence in the Noden reference does not disclose, expressly or inherently, the recited features of the claimed subject matter at least for reasons similar to those discussed above with regards to claim 15.

During the above-referenced interview, Applicant understood the Office to agree. Applicant sincerely thanks the Office for this indication and, for at least this reason, submits that this claim stands allowable.

§ 103 REJECTIONS

Claims 1, 10, 11, 13, 14, 18, and 19 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 5,097,533 (Burger).

Claims 2-4 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 5,097,533 (Burger) and further in view of U.S. Patent No. 6,006,279 (Hayes).

Claims 5-9, 12, and 47 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 5,097,533 (Burger) and further in view of U.S. Patent No. 5,495,571 (Corrie).

Claims 20-22, 31, 34, and 37-46 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 5,495,571 (Corrie).

Claim 35 stands rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 5,495,571 (Corrie) and further in view of U.S. Patent No. 5,097,533 (Burger).

Claim 36 stands rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 5,495,571 (Corrie) and further in view of U.S. Patent No. 6,006,279 (Hayes).

Claims 49 and 52-59 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 6,006,279 (Hayes).

Claim 51 stands rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 6,006,279 (Hayes) and further in view of U.S. Patent No. 5,097,533 (Burger).

Applicant respectfully traverses the rejections. Nevertheless, without conceding the propriety of the rejection and in the interest of expediting allowance of the application, independent claims 1, 34, 47 and 49 have been amended as proposed during the interview and are believed to be allowable.

Noden in view of Burger

Claims 1, 10, 11, 13, 14, 18, and 19 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 5,097,533 (Burger).

Independent claim 1, as presently presented, recites (emphasis added):

1. (Currently Amended) A method for designing an application programming interface (API), the method comprising:

preparing a plurality of code samples for a core scenario, each respective code sample of the plurality of code samples corresponding to a respective programming language of a plurality of programming languages;

deriving the API from the core scenario responsive to the plurality of code samples; ~~and~~

performing one or more usability studies on the API utilizing a plurality of developers, wherein the usability studies comprise:

determining by an API designer, whether the plurality of developers are able to use the API without problems; and

when the plurality of developers are not determined to be able to use the API without problems, then revising by the API designer, the API based on the one or more usability studies to produce a revised API; and

realizing the API in one or more processor-accessible storage media.

Claim 1 stands rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 5,097,533 (Burger). Applicant respectfully traverses the rejection. Without conceding the propriety of the rejection and in the interest of expediting allowance of the application, independent claim 1 is amended to more distinctly recite features of Applicant's claimed subject matter. Specifically, claim 1 has incorporated the subject matter of now cancelled claim 37 and some subject matter of claim 36.

Noden is directed to: "an engine for creating intermediate application programming interfaces by utilizing a target application's closed application programming interface through a macro coded in a specially designed macro language." (Abstract). However, utilizing a target application's closed API fails to disclose

Applicant's claimed operation of "performing one or more usability studies...", as discussed during the interview. Therefore, Applicant respectfully asserts that the evidence in the Noden reference does not teach or suggest the subject matter of amended claim 1.

Applicant also respectfully submits that the Burger references does not teach or suggest the features of amended claim 1. Burger allegedly describes: "A support system and method for interfacing of computer application programs written in a plurality of languages to a software system such as a database manager of the like. A plurality of generic application program interfaces or entry points are defined having a corresponding plurality of parameters in a consistent form required by the system to execute functions. The parameters are transformations of like parameters associated with the application programs which call the APIs. Processor states corresponding to threads in the application programs are stored in a table shared by the generic APIs. Upon return from the call and execution of the system function, processor state is restored and control returned to the application program. Necessity for separate entry points for applications written in each different supported language is thereby avoided as well as associated increased development effort, maintenance, and support." (Abstract).

However, Burger fails to remedy the deficiencies in Noden noted above. For example, Noden fails to teach or suggest, **"performing one or more usability studies on the API utilizing a plurality of developers, wherein the usability studies comprise: determining by an API designer, whether the plurality of developers are able to use the API without problems; when the plurality of**

developers are not determined to be able to use the API without problems, then revising by the API designer, the API based on the one or more usability studies to produce a revised API,” as presently recited. (emphasis added).

Thus, Noden and Burger, whether taken alone or in combination (assuming for the sake of argument that they can be combined), fail to teach or suggest the features of this claim. Accordingly, as discussed during the interview, this claim is allowable.

Dependent claims 10, 11, 13, and 14 depend from independent claim 1 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the §103 rejection of these claims should be withdrawn.

Dependent claims 18 and 19 depend from independent claim 15 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the §103 rejection of these claims should be withdrawn.

Noden in view of Burger and further in view of Hayes

Claims 2-4 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 5,097,533 (Burger) and further in view of U.S. Patent No. 6,006,279 (Hayes).

Dependent claims 2-4 depend from independent claim 1 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the § 103 rejection of these claims should be withdrawn.

Noden in view of Burger and further in view of Corrie

Claims 5-9, 12, and 47 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 5,097,533 (Burger) and further in view of U.S. Patent No. 5,495,571 (Corrie).

Dependent claims 6 and 12 depend from independent claim 1 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the §103 rejection of these claims should be withdrawn.

Independent claim 47, presently and recites (emphasis added).

47.(Currently Amended) A method for designing an application programming interface (API), the method comprising:

preparing a plurality of code samples for a core scenario, each respective code sample of the plurality of code samples corresponding to a respective programming language of a plurality of programming languages;

deriving the API for the core scenario responsive to the plurality of code samples;

performing one or more usability studies on the API utilizing a plurality of developers , wherein the usability studies comprise:

determining by an API designer, whether the plurality of developers_ are able to use the API without problems; and

when the plurality of developers are not determined to be able to use the API without problems, then revising by the API designer, the API based on the one or more usability studies to produce a revised API.

Claim 47 stands rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 5,097,533 (Burger) and further

in view of U.S. Patent No. 5,495,571 (Corrie). Applicant respectfully traverses the rejection. Without conceding the propriety of the rejection and in the interest of expediting allowance of the application, independent claim 47 is amended to more distinctly recite features of Applicant's claimed subject matter. Specifically, claim 47 has incorporated the subject matter of now cancelled claim 37 and some subject matter of claim 36.

Applicant asserts that as discussed above in regards to independent claim 1, that Noden and Burger do not teach or suggest the amended features of this claim, including **“performing one or more usability studies on the API utilizing a plurality of developers, wherein the usability studies comprise: determining by an API designer, whether the plurality of developers are able to use the API without problems; and when the plurality of developers are not determined to be able to use the API without problems, then revising by the API designer, the API based on the one or more usability studies to produce a revised API.”** (emphasis added).

In addition, applicant also asserts that Corrie fails to disclose or suggest the amended features of this claim. Instead, Corrie describes, “The present invention provides a method and system for performing parametric testing of a functional programming interface. Parametric testing of a function verifies that the function performs as expected when a valid or an invalid parameter is passed to the function. To perform parameter testing on a function, the present invention receives as input prototype information for the function, and then formulates a testing plan. The invention tests the function according to the testing plan. The testing plan specifies a list of invalid and valid values for each parameter of the function. The invention repeatedly invokes the function,

each time passing the function various combinations of invalid and valid values. The function passes the test when (1) the function does not return an error code for any combination of valid parameter values and (2) the function returns an error for any combination of parameter values that include an invalid parameter value.” (Abstract).

However, Corrie fails to remedy the deficiencies in Noden and Burger. For example, Noden, Burger, and Corrie, fail to disclose or suggest, “**performing one or more usability studies on the API utilizing a plurality of developers, wherein the usability studies comprise: determining by an API designer, whether the plurality of developers are able to use the API without problems; when the plurality of developers are not determined to be able to use the API without problems, then revising by the API designer, the API based on the one or more usability studies to produce a revised API.” (emphasis added). Thus, Noden, Burger and Corrie whether taken alone or in combination (assuming for the sake of argument that they can be combined), fail to teach or suggest the features of this claim. Accordingly, as discussed during the interview, this claim is allowable.**

Noden in view of Corrie

Claims 20-22, 31, 34, and 37-46 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 5,495,571 (Corrie).

Dependent claims 22 and 31 depend from independent claim 15 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the §103 rejection of these claims should be withdrawn.

Independent claim 34, presently recites (emphasis added):

34.(Currently Amended) A method for designing an application programming interface (API), the method comprising:
deriving an API for a scenario responsive to at least one code sample written with regard to the scenario;
performing one or more usability studies on the API utilizing a plurality of developers, **wherein the usability studies comprise:**
determining by an API designer, whether the plurality of developers are able to use the API without problems; and
when the plurality of developers are not determined to be able to use the API without problems, then revising by the API designer, the API based on the one or more usability studies to produce a revised API.

In a similar manner to independent claim 47, applicant asserts that Noden and Corrie do not disclose the features of amended claim 34. Therefore, this claim is allowable for at least this reason. Thus, Noden and Corrie whether taken alone or in combination (assuming for the sake of argument that they can be combined), fail to teach or suggest the features of this claim. Accordingly, as discussed during the interview, this claim is allowable.

Dependent claims 38-46 depend from independent claim 34 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the § 103 rejection of these claims should be withdrawn.

Noden in view of Corrie and further in view of Burger

Claim 35 stands rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 5,495,571 (Corrie) and further in view of U.S. Patent No. 5,097,533 (Burger).

Dependent claim 35 depends from independent claim 34 and is allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the §103 rejection of these claims should be withdrawn.

Noden in view of Corrie and further in view of Hayes

Claim 36 stands rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 5,495,571 (Corrie) and further in view of U.S. Patent No. 6,006,279 (Hayes).

Dependent claim 36 depends from independent claim 34 and is allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the §103 rejection of these claims should be withdrawn.

Noden in view of Hayes

Claims 49 and 52-59 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 6,006,279 (Hayes).

Independent claim 49, presently recites (emphasis added):

49.(Currently Amended) A method for designing an application programming interface (API), the method comprising:

deriving at least one aggregate component to support at least one code sample for at least one scenario;

determining additional requirements with respect to the at least one scenario;

deciding if the additional requirements can be added to the at least one aggregate component without adding more complexity than desired to the at least one scenario;

if it is decided that the additional requirements can not be added to the at least one aggregate component without adding more complexity than desired to the at least one scenario, then:

defining a plurality of factored types responsive to the deciding;

performing one or more usability studies on the refined at least one aggregate component utilizing a plurality of developers, wherein the usability studies comprise:

determining by an API designer, whether the plurality of developers are able to use the refined at least one aggregate component without problems; and

when the plurality of developers are not determined to be able to use the refined at least one aggregate component without problems, then revising by API designer, the refined at least one aggregate component based on the one or more usability studies to produce a revised aggregate component;

realizing the at least one aggregate component in one or more processor-accessible storage media; and

realizing the plurality of factored types in the one or more processor-accessible storage media; and

if it is decided that the additional requirements can be added to the at least one aggregate component without adding more complexity than desired to the at least one scenario, then:

refining the at least one aggregate component to incorporate the additional requirements;

performing one or more usability studies on the refined at least one aggregate component utilizing a plurality of developers, wherein the usability studies comprise:

determining by an API designer, whether the plurality of developers are able to use the refined at least one aggregate component without problems; and

when the plurality of developers are not determined to be able to use the refined at least one aggregate component without problems, then revising by API designer, the refined at least one aggregate component based on the one or more usability studies to produce a revised aggregate component;

realizing the at least one aggregate component in the one or more processor-accessible storage media.

As discussed above, the features of amended independent claim 49 are not taught or suggested by Noden. Hayes allegedly describes, “Computer-executable process steps stored on a computer-readable medium to provide an application programming interface (API) to a client application for communicating between the client application and a plug-in module. The API includes a menu-create routine which searches for plug-in modules, which enters information regarding a found plug-in module into a structure, the structure being used to create and to display a plug-in menu of found plug-in modules, an “about” menu-create routine which enters “about” plug-in information into an “about” structure, the “about” structure being used to create and to display a plug-in “about” menu, a menu-enable routine, a menu-disable routine and an invoking routine which permits the client application to utilize a selected plug-in module.” (Abstract).

However, Hayes fails to remedy the deficiencies in Noden above, with respect to claim 1. For example, Noden fails to teach or suggest, “**performing one or more usability studies on the API utilizing a plurality of developers, wherein the usability studies comprise: determining by an API designer, whether the plurality of developers are able to use the API without problems; when the plurality of developers are not determined to be able to use the API without**

problems, then revising by the API designer, the API based on the one or more usability studies to produce a revised API.” (emphasis added). Thus, Noden and Hayes whether taken alone or in combination (assuming for the sake of argument that they can be combined), fail to teach or suggest the features of this claim. Accordingly, as discussed during the interview, this claim is allowable.

Dependent claims 52-59 depend from independent claim 49 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the § 103 rejection of these claims should be withdrawn.

Noden in view of Hayes and further in view of Burger

Claim 51 stands rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,191,452 (Noden) in view of U.S. Patent No. 6,006,279 (Hayes) and further in view of U.S. Patent No. 5,097,533 (Burger).

Dependent claim 51 depends from independent claim 49 and is allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the §103 rejection of these claims should be withdrawn.

CONCLUSION

For at least the foregoing reasons, claims 1-4, 6, 10-19, 22-36, 38-49 and 51-59 are in condition for allowance. Applicant respectfully requests reconsideration and withdrawal of the rejections and an early notice of allowance.

If any issue remains unresolved that would prevent allowance of this case,
Applicant requests that the Examiner contact the undersigned attorney to resolve the issue.

Respectfully submitted,

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